Agency for Healthcare Research and Quality
Advancing Excellence in Health Care

NATIONAL QUALITY MEASURES CLEARINGHOUSE

General

Title

Home health care: percentage of home health stays in which patients were admitted to an acute care hospital during the 60 days following the start of the home health stay.

Source(s)

Home Health Quality Measures â€" Outcomes. Baltimore (MD): Centers for Medicare & Medicaid Services (CMS); 2016 Mar. 10 p.

Measure Domain

Primary Measure Domain

Related Health Care Delivery Measures: Use of Services

Secondary Measure Domain

Does not apply to this measure

Brief Abstract

Description

This measure is used to assess the percentage of home health stays in which patients were admitted to an acute care hospital during the 60 days following the start of the home health stay.

Rationale

Acute care hospitalization is a national priority for Medicare recipients, based on evidence that 20% of all Medicare beneficiaries who were hospitalized had a return hospital stay within 30 days. In 2004, this cost the Medicare program $17.4 billion (Jencks, Williams, & Coleman, 2009). Within home health care, publicly reported data indicate that 26% of home health care patients experience an acute care hospitalization, risk adjusted for factors that influence of the use of hospital care. There is no research on the extent to which these acute care hospitalizations are avoidable within home health care. However, there is evidence from studies of Medicare patients in general that there are interventions to reduce the need for hospital care within a substantial proportion of these Medicare beneficiaries. In addition, there

are a number of national initiatives, both governmental (e.g., Quality Improvement Organizations, National Priorities Partnership) and through private foundations (e.g., Institute for Healthcare Improvement), addressing this issue. Thus, there is room for improvement and this is a national priority issue.

Evidence for Rationale

Jencks SF, Williams MV, Coleman EA. Rehospitalizations among patients in the Medicare fee-for-service program. N Engl J Med. 2009 Apr 2;360(14):1418-28. PubMed

National Quality Forum (NQF). Acute care hospitalization (risk-adjusted). Washington (DC): National Quality Forum (NQF); 2012 Mar 30. 38 p.

Primary Health Components

Home health; acute care hospitalization

Denominator Description

Number of home health stays that begin during the 12-month observation period (see the related "Denominator Inclusions/Exclusions" field)

Numerator Description

Number of home health stays for patients who have a Medicare claim for an unplanned admission to an acute care hospital in the 60 days following the start of the home health stay (see the related "Numerator Inclusions/Exclusions" field)

Evidence Supporting the Measure

Type of Evidence Supporting the Criterion of Quality for the Measure

A formal consensus procedure, involving experts in relevant clinical, methodological, public health and organizational sciences

A systematic review of the clinical research literature (e.g., Cochrane Review)

One or more research studies published in a National Library of Medicine (NLM) indexed, peer-reviewed journal

Additional Information Supporting Need for the Measure

Unspecified

Extent of Measure Testing

Reliability Testing
All agencies with at least 20 home health stays beginning between 1/1/2010 and 12/31/2010 were included in the reliability analysis, because only information for agencies with at least 20 episodes is

publicly reported. Of the 10,125 agencies with any home health stays in 2010, 8,567 agencies met the threshold for the "Acute Care Hospitalization" measure. For the national analysis, a beta-binomial distribution was fitted using all agencies. For the hospital referral region (HRR) analysis described below, separate beta-binomials were fitted for each of 306 HRRs, using only those agencies in the HRR. It is worth noting that even the agencies that are in HRRs with only two agencies have high reliability scores, because these small HRR agencies tend to service many home health patients relative to the rest of the country.

Reliability analysis of this measure follows the beta-binomial method described in "The Reliability of Provider Profiling: A Tutorial" by John L. Adams.

Testing Results
The distribution of national reliability scores (percent of variance due to the difference in measure score among providers at the national level) shows the majority of agencies have a reliability score greater than 0.871, implying that their performance can likely be distinguished from other agencies (i.e., performance on this measure is unlikely to be due to measurement error or insufficient sample size, but is instead due to true differences between the agency and other agencies as it substantially exceeds within agency variation).

The distribution of HRR reliability scores (percent of variance due to the difference in measure score among providers at the HRR level) for this measure also shows that at least 50% of agencies have a reliability score greater than 0.772, suggesting that between agency variation substantially exceeds within agency variation even at the HRR level.

Validity Testing
Centers for Medicare & Medicaid Services (CMS) chose to respecify the "Acute Care Hospitalization" measure with Medicare claims data to enhance the validity and reliability of this measure. The measure population is limited to fee-for-service (FFS) Medicare beneficiaries, ensuring that Medicare claims are filed for all covered services. The measure numerator is a broad measure of utilization (acute care hospitalization) that can be cleanly identified using claims data. Because claims form the basis of Medicare payments, CMS invests significant resources in validating claims submissions prior to payment.

Testing Results
Of the sampled claims, the hospital had no record of seeing the patient in only one case. It is possible that an extremely small fraction of claims represent care that did not occur, but this problem is clearly not widespread. For acute inpatient hospital claims reviewed, 9.5% had some type of payment error. Payment error analysis can also shed light on cases where the patient was hospitalized, but the hospitalization was not medically necessary. Payment errors include insufficient documentation, meaning the reviewers can't determine if the treatment (including hospital admission) was medically necessary, and medical necessity errors. In some cases, the reviewers determined that the patient's medical condition did not require admission to an acute inpatient hospital. Thus 9.5% represents an upper bound on the extent to which Medicare claims document hospitalizations that were not medically necessary.

Evidence for Extent of Measure Testing

Adams JL. The reliability of provider profiling: a tutorial. Santa Monica (CA): RAND Corporation; 2009. 33 p.

National Quality Forum (NQF). Acute care hospitalization (risk-adjusted). Washington (DC): National Quality Forum (NQF); 2012 Mar 30. 38 p.

State of Use of the Measure

State of Use

Current routine use

Current Use

not defined yet

Application of the Measure in its Current Use

Measurement Setting

Home Care

Professionals Involved in Delivery of Health Services

not defined yet

Least Aggregated Level of Services Delivery Addressed

Single Health Care Delivery or Public Health Organizations

Statement of Acceptable Minimum Sample Size

Does not apply to this measure

Target Population Age

Unspecified

Target Population Gender

Either male or female

National Strategy for Quality Improvement in Health Care

National Quality Strategy Priority

Institute of Medicine (IOM) National Health Care Quality Report Categories

IOM Care Need

Not within an IOM Care Need

IOM Domain

Not within an IOM Domain

Data Collection for the Measure

Case Finding Period

12-month observation period

Denominator Sampling Frame

Enrollees or beneficiaries

Denominator (Index) Event or Characteristic

Encounter

Denominator Time Window

not defined yet

Denominator Inclusions/Exclusions

Inclusions
Number of home health stays that begin during the 12-month observation period. A home health stay is a sequence of home health payment episodes separated from other home health payment episodes by at least 60 days.

Note: Examining claims from the 120 days before the beginning of the 12-month observation period is necessary to ensure that stays beginning during the observation period are in fact separated from previous home health claims by at least 60 days.

Exclusions

- Home health stays for patients who are not continuously enrolled in fee-for-service (FFS) Medicare during the numerator window (60 days following the start of the home health stay) or until death
- Home health stays that begin with a Low Utilization Payment Adjustment (LUPA) claim
- Home health stays in which the patient receives service from multiple agencies during the first 60 days
- Home health stays for patients who are not continuously enrolled in FFS Medicare for the 6 months prior to the start of the home health stay

Exclusions/Exceptions

not defined yet

Numerator Inclusions/Exclusions

Inclusions

Number of home health stays for patients who have a Medicare claim for an unplanned admission to an acute care hospital in the 60 days following the start of the home health stay

Note: The 60 day time window is calculated by adding 60 days to the "from" date in the first home health claim in the series of home health claims that comprise the home health stay. Acute care hospitalization occurs (and the home health stay is included in the numerator) if the patient has at least one Medicare inpatient claim from short term or critical access hospitals (identified by Centers for Medicare & Medicaid Services [CMS] Certification Number ending in 0001-0879, 0800-0899, or 1300-1399) during the 60 day window.

Exclusions

Inpatient claims for planned hospitalizations are excluded from the measure numerator.

Numerator Search Strategy

Institutionalization

Data Source

Administrative clinical data

Type of Health State

Proxy for Outcome

Instruments Used and/or Associated with the Measure

Unspecified

Computation of the Measure

Measure Specifies Disaggregation

Does not apply to this measure

Scoring

Rate/Proportion

Interpretation of Score

Does not apply to this measure (i.e., there is no pre-defined preference for the measure score)

Allowance for Patient or Population Factors

not defined yet

Description of Allowance for Patient or Population Factors

The utilization measures are risk adjusted using a predictive model developed specifically for the measures which takes into account differences in patient health status, as measured by the patient's

previous Medicare claims.

To account for beneficiary characteristics that may affect the risk of emergency department use or acute care hospitalization, the risk adjustment model uses potential risk factors that fall into five categories:

Prior care setting;
Health status;
Demographics;
Enrollment status; and
Interactions terms.

Details of the model are available for download at Centers for Medicare & Medicaid Services (CMS) Web site .

Standard of Comparison

not defined yet

Identifying Information

Original Title

Acute care hospitalization.

Measure Collection Name

Outcome and Assessment Information Set (OASIS)

Measure Set Name

Outcome-Based Quality Improvement (OBQI) Measures

Submitter

Centers for Medicare & Medicaid Services - Federal Government Agency [U.S.]

Developer

Acumen LLC, under contract to Centers for Medicare and Medicaid Services - Nonprofit Research Organization

Centers for Medicare & Medicaid Services - Federal Government Agency [U.S.]

Funding Source(s)

Centers for Medicare & Medicaid Services

Composition of the Group that Developed the Measure

Unspecified

Financial Disclosures/Other Potential Conflicts of Interest

None to report

Endorser

National Quality Forum - None

NQF Number

not defined yet

Date of Endorsement

2013 Oct 30

Adaptation

This measure was not adapted from another source.

Date of Most Current Version in NQMC

2016 Mar

Measure Maintenance

Unspecified

Date of Next Anticipated Revision

Unspecified

Measure Status

Please note: This measure has been updated. The National Quality Measures Clearinghouse is working to update this summary.

Measure Availability

Source available from the Centers for Medicare & Medicaid Services (CMS) Web site .

For more information, contact CMS at 7500 Security Boulevard, Baltimore, MD 21244; Web site: www.cms.gov .

Companion Documents

The following is available:

Home health claims-based utilization measures: risk adjustment methodology. Burlingame (CA): Acumen, LLC; 2012 Aug. 20 p. This document is available from the Centers for Medicare & Medicaid (CMS) Web site .

NQMC Status

This NQMC summary was completed by ECRI Institute on June 18, 2014. The information was verified by the measure developer on August 22, 2014. The information was reaffirmed by the measure developer on April 7, 2016.

Copyright Statement

Production

Source(s)

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